

Jimma Ethiopia Cleft and Plastic Surgery Unit Update for CamSmile

Per N Hall – Plastic and Cleft Surgeon, Addenbrooke's Hospital, Cambridge

Background

Since 2006 surgeons and anaesthetists from UK and Ireland have been regularly visiting the University teaching hospital in Jimma, Ethiopia approximately 6 hours drive from the capital Addis Ababa. This has been under the umbrella of Operation Smile Inc an International charity but steered largely by Operation Smile UK (<http://www.operationsmile.org.uk/>) whose focus has been on supporting sustainability projects in Cleft Lip and Palate provision in the developing world. A clear example of the success of this approach is a comprehensive care facility for Cleft Lip and Palate established in partnership with the government of Assam, The Tata group and Operation Smile in Northern India. The centre in Guwahati, Assam, sees approximately 1000 unrepaired clefts year-round and these are now treated largely by indigenous Assamese staff including surgeons. The backlog is estimated at 30,000 for this province alone.

The University Hospital in Jimma, Ethiopia serves a catchment of 15 million people (population of Ethiopia is approximately 74 million) yet it has no Plastic Surgery and Cleft Lip and Palate service and no dedicated Burns facility. It only has 2 full-time anaesthetists and relies on anaesthetic nurse equivalents under the supervision of the dedicated anaesthetists. The incidence of unrepaired Clefts is unknown but, in an area with no previous provision, and with an estimated birth-rate of 1 in 700 births, the backlog will be of the order of a few thousand. Ethiopia will probably have 1500 Clefts born each year many of which will die from failure to thrive from the unrecognised cleft of the palate. Children with isolated cleft lip survive as they can breast feed successfully so this explains our experience of a preponderance of cleft lips attending for consideration of repair with very few palates coming forward.

Jimma University has hosted many international Missions from Operation Smile during which time a dialogue has evolved around training their own Ethiopian plastic surgeons and establishing a plastic and reconstructive surgery unit which will also treat patients with Cleft Lip and Palate. A visiting lecturer program in anaesthesia, established by Dr Phil MacDonald, Medical Director of Operation Smile UK, has been a resounding success sending doctors from the South Coast who have their final exams but are pre completion of training to spend 3-6 months teaching everything they know to the junior staff being trained in anaesthesia and thereby raising the standard of care delivered. There has been a 10% reduction in Mortality on the Intensive Care Unit measured after one Visiting Lecturers visit and expected reduction in perinatal mortality following an intensive training program in Safe Obstetric Anaesthesia which took place in parallel with the surgical training program in March 2013.

There is a year round presence of a Swiss based trauma team who are currently training the general surgical residents in all aspects of trauma (not just the UK model of limb injury). During our recent visit in March 2013 we performed some combined cases to help with limb injury cover and have agreed to work on a partnership to possibly refurbish an existing trauma theatre and ward to make a self contained Trauma and Plastics unit as an interim measure.

Jimma University Hospital is currently building a new 6 floor hospital which is, infact now built but not yet commissioned or fully serviced. We would anticipate that this may take a few more years to complete on account of funding mostly but ultimately there would be an excellent facility for this service to grow into. Operation Smile UK remains interested in raising funds for this building in the long term provided intermediate goals are achieved with the Plastic Surgery training program and have recently agreed to direct some modest funds into refurbishing an existing trauma theatre and ward in conjunction with the Star Trauma charity from Switzerland in order to progress with this short term goal and not be stalled by the bigger hospital picture.

We are completely confident in the ability and calibre of the general surgical residents we have met and worked with over the last 2 years to be able, interested and dextrous enough to become trained in all aspects of Plastic, reconstructive and cleft surgery. There is enormous support and "buy in" from the senior General Surgeons in Jimma who want to see this happen. We have all have enjoyed the opportunity of working together, discussing cases and beginning to transfer Plastic surgical techniques to solve some occasionally challenging problems.

In March 2012, 55 cases we performed with the residents either being shown cases or taken through cases with the emphasis on either cleft lip or secondary reconstruction for burns (release of tight webbing bands around the face and neck mostly). All the cleft lip cases were evaluated using the Operation Smile quality assurance panel who were not informed of the name or grade of the surgeon performing the surgery until after the outcome had been scored. We have presented this data to the Craniofacial Society of Great Britain and Ireland Surgeons special interest group and attach the man outcomes in poster form. In essence, this shows that the outcomes for the Ethiopian trainees were judged to be either excellent or good in 13 out of 14 cases performed by them as the main surgeon compared favourably with the 15 out of 16 excellent or good found for the experienced UK Cleft surgeons acting as trainers. These results are exceptional considering the Ethiopian residents had no previous training in plastic surgery at all and emphasises their pre-existing manual dexterity and ability to learn new surgical techniques by the process we used.

We are looking to fund year round presence of Plastic surgeons from UK, Ireland and US who have just completed or are close to completing their plastic surgery training but who have passed the final exam in Plastic Surgery in UK or equivalent in US over the next 3 years We would expect these individuals to teach and train within their ability the fundamentals of Plastic surgery which would comprise some 30 or so work-horse techniques or reconstructive flaps. Sub specialty work such as Cleft Lip and Plate would be taught on focussed training fortnights where cases would be arranged in advance with a theme to them to enable senior experienced trainers to travel over to deliver the specialist training. Initially microsurgical reconstructions would not be on the program but this would certainly become an option once the first credentialed Ethiopian Plastic surgeons were in Place.

This program would run in parallel with the existing Visiting Lecturer program in anaesthesia and the year round presence of the Swiss Trauma team.

There is much to do in setting this up but the Operation Smile South Africa team are very motivated to arrange what they can and Operation Smile UK and Ireland are totally committed to this project. As one of the surgeons on the overseeing committee I am very excited about the real possibility of setting up a sustainable service in this region of Ethiopia and give my full commitment to supporting this project.

Per Hall